Exhibit 1 -
Brown Reply Testimony

STATE OF ALASKA

THE REGULATORY COMMISSION OF ALASKA

Before Commissioners:

Mark Johnson, Chair
Kate Giard
Dave Harbour
James S. Strandberg
G. Nanette Thompson

In the Matter of the New Requirements	)	
Of 47 CFR § 51 Related to FCC Triennial Review	)	
Order Interconnection Provisions and Policies	)	R-03-7
	)	

REPLY TESTIMONY OF BLAINE D. BROWN ON BEHALF OF GENERAL COMMUNICATION, INC.

My name is Blaine Brown, and I am Senior Manager, Planning and Projects for Local Service at General Communication, Inc. ("GCI"). My primary responsibilities are to support Local Services and other GCI departments in the planning, design, and project management of GCI's local service network. I have held this position since January 2001.

The purpose of my reply testimony is to describe the tasks, costs, and potential barriers in connection with collocating at a remote switching device or concentrator. I will also explain how capacity on a fiber "ring" should be analyzed and why the presence of fiber optic facilities generally in Alaska does not address the issue of dedicated transport on routes between incumbent switching locations. Finally, I will describe the technical and practical steps GCI has taken to provide ACS access, at its option, to copper loop facilities GCI has installed for two subdivisions on Elmendorf Air Force Base.

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1. Collocation at Remote Switching and Concentrator Sites

The requirements for collocation differ from site to site based on a number of different factors, and the options and ability to collocate will typically diminish with the size of the remote or concentrator.

The Tasks Required for Collocation

The tasks required to plan, design, construct, and operationalize additional collocation at the remote or concentrator level are set forth at Exhibits GCI-1 (Physical Collocation – Typical Task List) and GCI-2 (Adjacent Collocation – Typical Task List). Collocation at remotes or non-multi-hostable DLCs could typically only be accommodated through adjacent collocation. This process starts with an initial application from GCI to ACS for collocation and ends once the site has been tested and confirmed operational, with many tasks along the way. And because these tasks are undertaken by at least three parties—ACS, GCI, and potentially third parties—the timeframe for completing tasks is rarely predictable.

For example, adjacent collocation typically requires GCI to negotiate with a third party for use of property adjacent to the ACS location. In the case of the proposed Dale Road collocation in Fairbanks, after GCI and ACS had reached a tentative agreement on the interconnection design, GCI discovered the property was under the jurisdiction of the SOA, Fairbanks Airport, sub-leased to another party, and the original lease agreement had property line errors. Several months of negotiation and a new survey were required to resolve the issue.

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Collocation Costs

The cost of any collocation project varies from site to site, depending on a number of factors. These factors include the type of device ACS has installed with which interconnection is to be achieved (*e.g.*, remote/DLC/OPM, multi-hostable/non-multi-hostable), the availability of space and power at the collocation site, whether the collocation will be physical or adjacent, and the number of lines for which the space and equipment must be designed (*i.e.*, the capacity). The number of lines that may be served at the site will determine how the equipment and enclosure, shelter and/or collocation space are dimensioned, which affects the overall cost of collocation.

Costs may vary by line size, and other costs are fairly insensitive to the number of lines to be served. For example, there is a direct correlation between the number of lines at a site and the number of tie pairs. As the number of necessary tie pairs increases, so does the amount of MDF space needed on both ends to terminate the tie pairs. In turn, the size of the DLC equipment and the number of line cards to be installed increases. As the size of the equipment increases, the power needed to operate the equipment increases, as well as the amount of heat dissipated. In addition, as the size of the equipment and power system increase, the size of the enclosure or collocation space increases. All these would affect the cost of collocation at a particular site.

Other costs do not typically vary by line count. For example, the GR-303 interface between the DLC and the central office switch must be provisioned with a minimum of two T-1 circuits. This provides 46 voice channels. At 6:1 concentration, a maximum of 276 lines can be provisioned. Therefore, the cost of a GR-303 group for a DLC that is equipped for 100 lines is the same as the cost of a GR-303 group for a DLC that is equipped for 250

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lines. The cost of placing fiber to connect a DLC to the central office switch is fixed regardless of whether the DLC is equipped to deliver 200 lines or 2,000 lines. In addition, the cost of having commercial electrical service established at the site is fixed regardless of whether the DLC is equipped to deliver 200 lines or 2,000 lines. These are just a few examples of how the relative cost of collocating at the site to access customers at the sub-loop level can vary (or not) based on the circumstances of the particular site.[1]

Barriers to Collocation

Under some circumstances, there are barriers that limit the ability to collocate at a particular site. For example, collocation and cross-connection may not be achievable where there is insufficient space at the site for physical or adjacent collocation, insufficient capacity at the main distribution frame to terminate tie cables, or lack of space for cross-connection in housing for remotes or concentrators. According to the ACS website,[2] there are 10 locations designated "no space available" in Fairbanks, 12 in Juneau, and 19 in Anchorage.

In the absence of a main distribution frame at a particular OPM or DLC, whether the device is equipped with internal cross-connect panels or external cross-connect cabinets can affect the ability to achieve collocation. These devices are typically stored in relatively small, controlled environmental cabinets, or CEVs.[3] With an internal cross-connect panel, the cabinet must be opened each time a connection has to be made, moved or removed. This situation is not conducive to collocation, because it poses the potential for introducing

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[1] GCI Exhibit 3, provided with GCI's response to the Commission's data requests, sets forth examples of collocation costs.

[2] http://www.acsalaska.com/custservice/regulatory/collocation/321/CoLoSpace_%20Revised%205-21-02.pdf. The document is attached hereto as Exhibit BDB-1.

[3] *See* Exhibit BDB-2 for pictures of sample DLC equipment sites.

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condensation into the housing and exposes the equipment to weather conditions from which it is designed to be protected. If the housing is equipped with an external cross-connect cabinet, then technicians can access the panel at a chamber at the end of the cabinet, avoiding breach of the environmental controls. If there is no space for such an arrangement, then providing for cross-connect to an adjacent box is preferable to rebuilding the entire site, which is what ACS proposed for GCI collocation at the Van Horn site in Fairbanks. GCI proposed a more economical solution, which ACS rejected. In any event, the ability (or not) to collocate at a particular site has to be assessed based on the characteristics of that site.

2. Assessing Transport Capacity

GCI has constructed a series of fiber optic, SONET rings in Anchorage, Fairbanks, and Juneau that include ACS switching sites. In response to the Commission's discovery Question No. 23, GCI provided a schematic diagram of these facilities in Anchorage[4] and identified the maximum capacity on each fiber segment.[5] This capacity is listed as an "up to" capacity, because the capacity between any two points in the ring is affected by traffic on the other segments of the ring.

A simple example will help illustrate this point. Assume that a fiber ring with a maximum OC12 capacity has three points: Site A, Site B, and Site C. In some SONET configurations, the ring may be configured to automatically switch to the "other side" if one side of the ring is cut. If the direct path from A to B is interrupted, the equipment will switch the circuit to the other path: A via C to B. Thus, although an OC12 will carry 12 DS3s, if five DS3s are provisioned between Site A and Site B, only seven DS3s can then be

[4] Supplement to Response of GCI to RCA Order Requesting Data, R-03-7 (filed Mar. 26, 2004), Exhibit GCI-9.
[5] *Id.*, Revised Exhibit GCI-7.

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provisioned between Site B and Site C, due to the need for restoral capacity for the five DS3s between Site A and Site B. Therefore, though the entire ring may have a capacity of OC12, the capacity between any two points on the ring may be less than that.

As for the availability of fiber capacity for use as dedicated transport, ACS has generally described fiber deployments throughout the state, including the undersea fiber cables Alaska United East (between Seward and Warrenton, Oregon) and the North Pacific Cable spur (between Seward and Pacific City Oregon). These fiber facilities are not transport facilities as defined for the purpose of unbundled network elements because they are not between two ACS switching centers, terminating in a collocation arrangement in the central office.[6] I should also point out that the North Pacific Cable was taken out of service earlier this year. The bottom line is that if the Commission is assessing the number of alternatives to incumbent-provided transport, then its review should be targeted to fiber that physically connects ACS switching facilities.

3. ACS Access to GCI Copper Loop Facilities

ACS and its witnesses have suggested that ACS does not have the ability to serve customers located in the two subdivisions on Elemendorf Air Force Base where GCI has deployed copper loop facilities.[7] This is not accurate.

GCI constructed loop facilities in the Boniface and Dallas subdivisions. Anticipating that ACS might seek access to the customers in these areas, GCI engineered the systems to

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[6] *See Triennial Review Order* at ¶ 406 (specifying that only fiber terminating in a collocation arrangement in an incumbent's central office is to be counted as a competitive facility).

[7] *See* ACS Comments, R-03-7 (filed Jan. 12, 2004) at n.10; Affidavit of Steven A. Pratt, R-03-7 (filed Jan. 12, 2004) ("Pratt Affidavit") at ¶ 17; Affidavit of Howard Shelanski, R-03-7 (filed Jan. 12, 2004) ("Shelanski Affidavit") at ¶ 35.

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accommodate such access of the customer loops via a GR-303 link at the DLC. This is precisely the method by which GCI can gain access to certain DLC-served loops where ACS has installed next generation DLCs that accommodate multi-hosting. GCI has offered ACS the option to access customers served in these areas through multi-hosting or resale of GCI services.[8] ACS requested a site survey of the Boniface facility, which GCI provided at no charge. ACS not only had a tour of the shelter and equipment, but also was given a copy of the OSP work order and assignment sheets to more thoroughly understand the design. To my knowledge, ACS has not acted upon either our offer to interconnect through a GR-303 link, or to resell GCI services.

[8] *See* Exhibit BDB-3, attached hereto.

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(Blaine Brown)

Exhibit
BDB-1

ACS
Alaska Communications Systems

NO COLLOCATE SPACE AVAILABLE

CENTRAL DISTRICT		
INT'L AIRPORT (RLCM)	INAP	No Space Available, Customer Premises
INT'L AIRPORT (ACCES NODE)	ARPT	No Space Available, Customer Premises
HUFFMAN (RSCS)	HUFB	No Space Available
FAA (RLCM)	FAA0	No Space Available, Customer Premises
GSA (RSC)	GSC0	No Space Available, Customer Premises
GSA (RSC)	GSC1	No Space Available, Customer Premises
HOCKERS (PULSECOM)	HOCK	No Space Available
MOUNTAIN VIEW (RSCS)	MTVW	No Space Available
MT. VIEW (ACCESS NODE)	MTNV	No Space Available
SCHOOL DISTRICT (ACCESS NODE)	NASD	No Space Available, Customer Premises
STUCKAGAIN HGTS (AFC)	NNEW1	No Space Available
STUCKAGAIN HGTS (AFC)	NNEW3	No Space Available
OCEANVIEW (FUJITSU DLC)	OCVW	No Space Available
PROV HOSP (ACCESS NODE)	PAMC	No Space Available, Customer Premises
POTTER (FUJITSU DLC)	POTR	No Space Available
UPPER HUFFMAN	RNUH	No Space Available
KLATT ROAD (UE9000)	SAKT	No Space Available
SANDLAKE (ACCESS NODE)	SNLK	No Space Available
SANDLAKE (ACCESS NODE)	SLK1	No Space Available
KENO HILLS/RAINBOW/SYLVAN(AFC)	SNS1	No Space Available
ANCHORAGE SCHOOL DIST(AFC)	SNSW	No Space Available, Customer Premises
SOUTH PORT (OPAC)	SOPO	No Space Available
TUDOR (RSCS)	TSC0	No Space Available
TUDOR (ACCESS NODE)	TUDR	No Space Available
TANAINA HILLS (RLCM)	WOTH	No Space Available
INT'L AIRPORT (RSC)	WRAP1	No Space Available
INT'L AIRPORT (RSC)	WRAP2	No Space Available
INT'L AIRPORT (ACCES NODE)	WAA1	No Space Available

INTERIOR DISTRICT		
CHENA RIDGE (RSCS)	CHRD	No Space Available
FOX (OPM)	FOXX	No Space Available
GOLD STREAM (RSCS)	GLDS	No Space Available
JOHNSON RD. (RLCM)	JNRD	No Space Available
MILLER HILL (OPM)	MHIL	No Space Available
PEEDE / NORDALE (OPM)	PEDE	No Space Available
ROZAK ROAD 1 (RLCM) Host Globe	ROZ1	No Space Available
ROZAK ROAD 2 (RLCM) Host Globe	ROZ2	No Space Available
SPORTSMAN WAY (OPM)	SPWA	No Space Available
STEEL CREEK (OPM)	STCK	No Space Available
VANHORN (OPM)	VAN2	No Space Available
VANHORN (OPM)	VANH	No Space Available
WEDGEWOOD (OPM)	WEDG	No Space Available

HUSLIA (MITEL)	HSLA	No Space Available, Customer Premises
KOYUKUK (MITEL)	KOYK	No Space Available, Customer Premises
KALTAG (MITEL)	KTAG	No Space Available, Customer Premises
NULATO (DMS 10 - 1 BAY)	NULT	No Space Available, Customer Premises
BORDER CITY (DMS 10 - 1 BAY)	BRCY	No Space Available, Customer Premises
EAST RAMP (OPM)	ERMP	Unknown - Unlikely
JACK WARREN (OPM)	JKWN	Unknown - Unlikely
NEELY RD. # 1 (OPM)	NLY1	Unknown - Unlikely
NEELY RD. # 2 (OPM)	NLY2	Unknown - Unlikely
NEELY RD. # 3 (OPM) Host Globe	NLY3	Unknown - Unlikely
SANTIAGO # 1 (OPM)	SAN1	Unknown - Unlikely
SANTIAGO # 2 (OPM)	SAN2	Unknown - Unlikely

SOUTHWEST DISTRICT

KARLUK (DMS 10 - 1 BAY)	KRLK	No Space Available
NIKOLSKI (DMS 10 - 1 BAY)	NKLI	No Space Available
PORT ALSWORTH (DMS 10 - 1 BAY)	PTAH	No Space Available
CHIGNIK LAGOON (DMS 10 - 1 BAY)	CGLG	No Space Available, Customer Premises
CHIGNIK LAKE (DMS 10 - 1 BAY)	CGLK	No Space Available, Customer Premises
NONDALTON (DMS 10 - 1 BAY)	NDLT	No Space Available, Customer Premises
NELSON LAGOON (DMS 10 - 1 BAY)	NLLG	No Space Available, Customer Premises
OLD HARBOR (MITEL)	OLHR	No Space Available, Customer Premises
OUZINKIE (MITEL)	OZNK	No Space Available, Customer Premises
PILOT POINT (DMS 10 - 1 BAY)	PLPT	No Space Available, Customer Premises
PERRYVILLE (DMS 10 - 1 BAY)	PYVL	No Space Available, Customer Premises
AKUTAN (MITEL) 4/99	AKUT	Unknown - Unlikely
BEAR CREEK (OPM)	BRCK	Unknown - Unlikely
CARL'S (OPM)	CRLS	Unknown - Unlikely
DAVE (OPM)	DAVE	Unknown - Unlikely
EAST ROAD (OPM)	EAST	Unknown - Unlikely
EGEGIK (DMS 10 - 1 BAY)	EGEK	Unknown - Unlikely
FUNNY RIVER (OPM)	FNRV	Unknown - Unlikely
GOVERNMENT HILL (OPM)	GVMT	Unknown - Unlikely
JIM DAHLER (OPM)	JMDL	Unknown - Unlikely
JOES (Nikiski) (OPAC)	JOES	Unknown - Unlikely
KAKHONAK (MITEL)	KOKN	Unknown - Unlikely
LEROY (RLCM)	LERY	Unknown - Unlikely
MACKEY LAKE (OPAC)	MKLK	Unknown - Unlikely
OTMELOI (OPM)	OTML	Unknown - Unlikely
PITZMAN (OPM)	PITZ	Unknown - Unlikely
POPPY LANE (OPM)	PYLN	Unknown - Unlikely
SPRUCE CAPE (OPM)	SPCP	Unknown - Unlikely
TANGLEWOOD (OPAC)	TGWD	Unknown - Unlikely
WOMAN BAY (OPM)	WMBY	Unknown - Unlikely
BANKS (OPAC)	BNKS	Unknown - Unlikely
KENAI RIVER (RST)	SN1A1	Unknown - Unlikely
WINDY LANE (RST)	SN1A2	Unknown - Unlikely
TOTE ROAD (RST)	SN1A3	Unknown - Unlikely

SOUTHEAST DISTRICT

STERLING (ACCESS NODE)	STLA	No Space Available
STERLING (RSCS)	STLG	No Space Available
PORT ALEXANDER (MITEL)	PTAX	Unknown - Unlikely
POINT BAKER (MITEL)	PTBK	Unknown - Unlikely
ELFIN COVE (MITEL)	ELFN	No Space Available
GUSTAVUS (MITEL)	GUST	No Space Available
HOBART BAY (MITEL)	HBBY	No Space Available
KAKE (DMS 10 - 2 BAY)	KAKE	No Space Available
KLAWOCK (DMS 10 - 3 BAY)	KLWK	No Space Available
KASAAN (MITEL)	KSAN	No Space Available
PELICAN (DMS 10 - 1 BAY)	PLCN	No Space Available
PORT PROTECTION (MITEL)	PRPN	No Space Available
MENDENHALL (ACCESS NODE)	MENA	No Space Available
MENDENHALL (RSCS)	MEND	No Space Available
YAKUTAT (MITEL)	YKUT	No Space Available, Customer Premises
AUKE BAY (RSC)	AUKE	No Space Available, Customer Premises
CUBE COVE (REDCOM)	CBCV	No Space Available, Customer Premises
COFFMAN COVE (MITEL)	CMCV	No Space Available, Customer Premises
BONNIE BRAE (OPM)	BNBR	Unknown - Unlikely
CHARTERIS (OPAC)	CHRT	Unknown - Unlikely
LENA POINT (OPAC)	LNPT	Unknown - Unlikely
MOUNTAINSIDE (OPAC)	MTSI	Unknown - Unlikely
RIVERSIDE (OPM)	RVSD	Unknown - Unlikely
SALMON CREEK (OPM)	SMCR	Unknown - Unlikely
THANE RD. (OPM)	THRD	Unknown - Unlikely
TRINITY (OPM)	TRNT	Unknown - Unlikely

(Blaine Brown)

Exhibit
BDB-2

EXHIBIT BDB-2

ACS Shelter – Dale Road, Fairbanks, Alaska

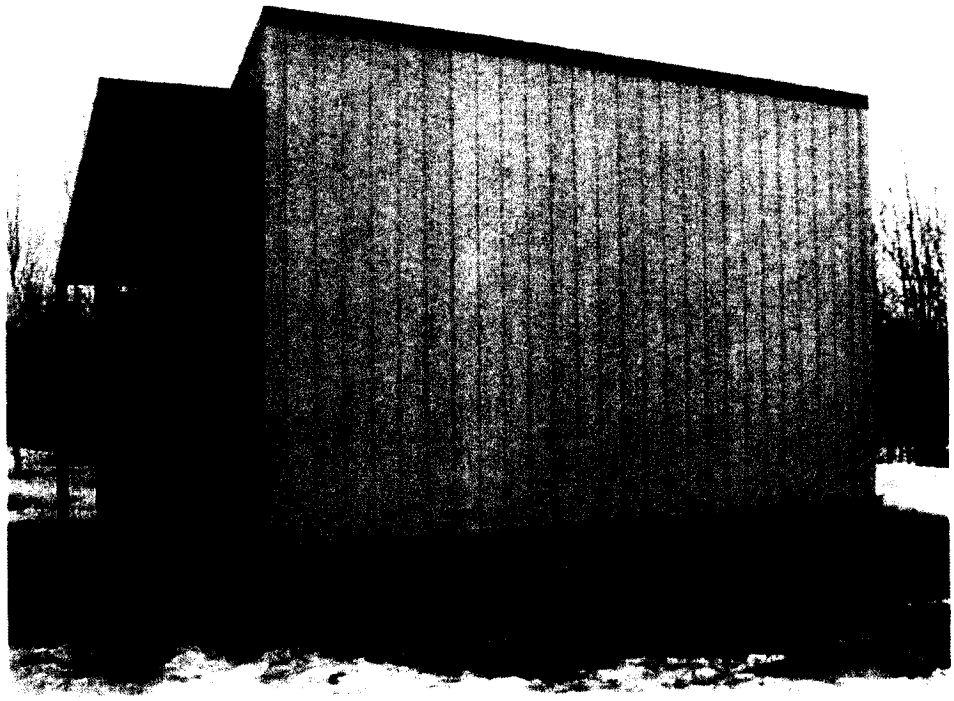


EXHIBIT BDB-2

Example of Shelter GCI would have to construct for collocation

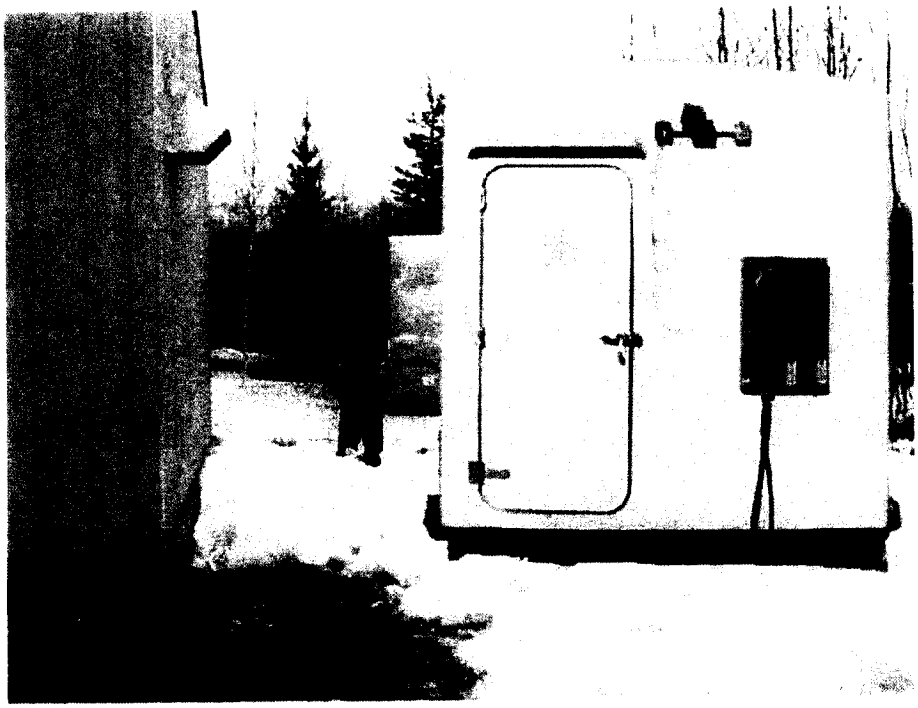


EXHIBIT BDB-2

ACS Van Horn Shelter with SAI on south side.
ACS doesn't have adequate space in the shelter to facilitate Co-Location.
All ACS circuits terminate and cross-connect in the SAI.

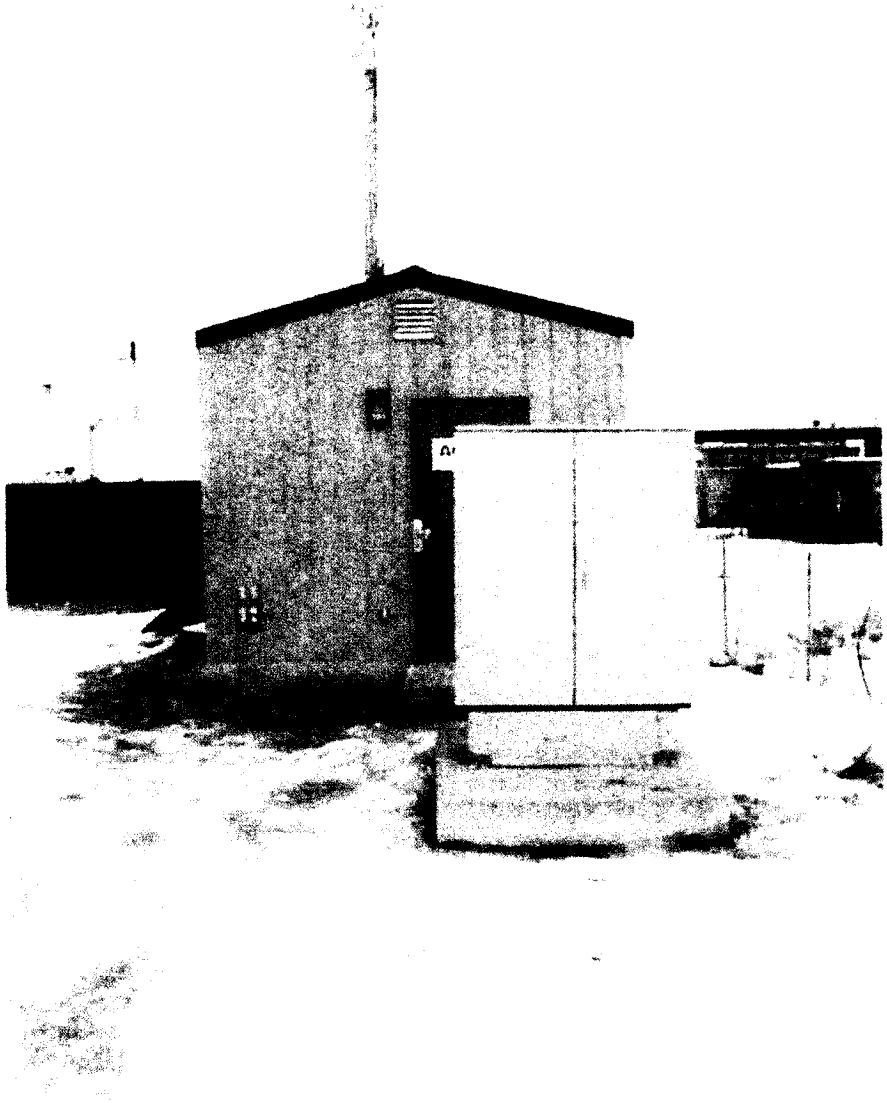


EXHIBIT BDB-2

GCI's proposal for Interconnect - Place a small cross-connect on the side of ACS' existing SAI. - GCI Estimated Cost. Less than $10,000
ACS' response to GCI's proposal, "Non-industry Standard"
GCI requested an estimate from ACS for their proposal.
ACS' estimate to replace the existing 5400 pair SAI a new 7200 Pair SAI $120,708

EXHIBIT BDB-2

AnyMedia Digital Loop Carrier System – Environmental Cabinet Showing the Distribution/Protector side of the cabinet.

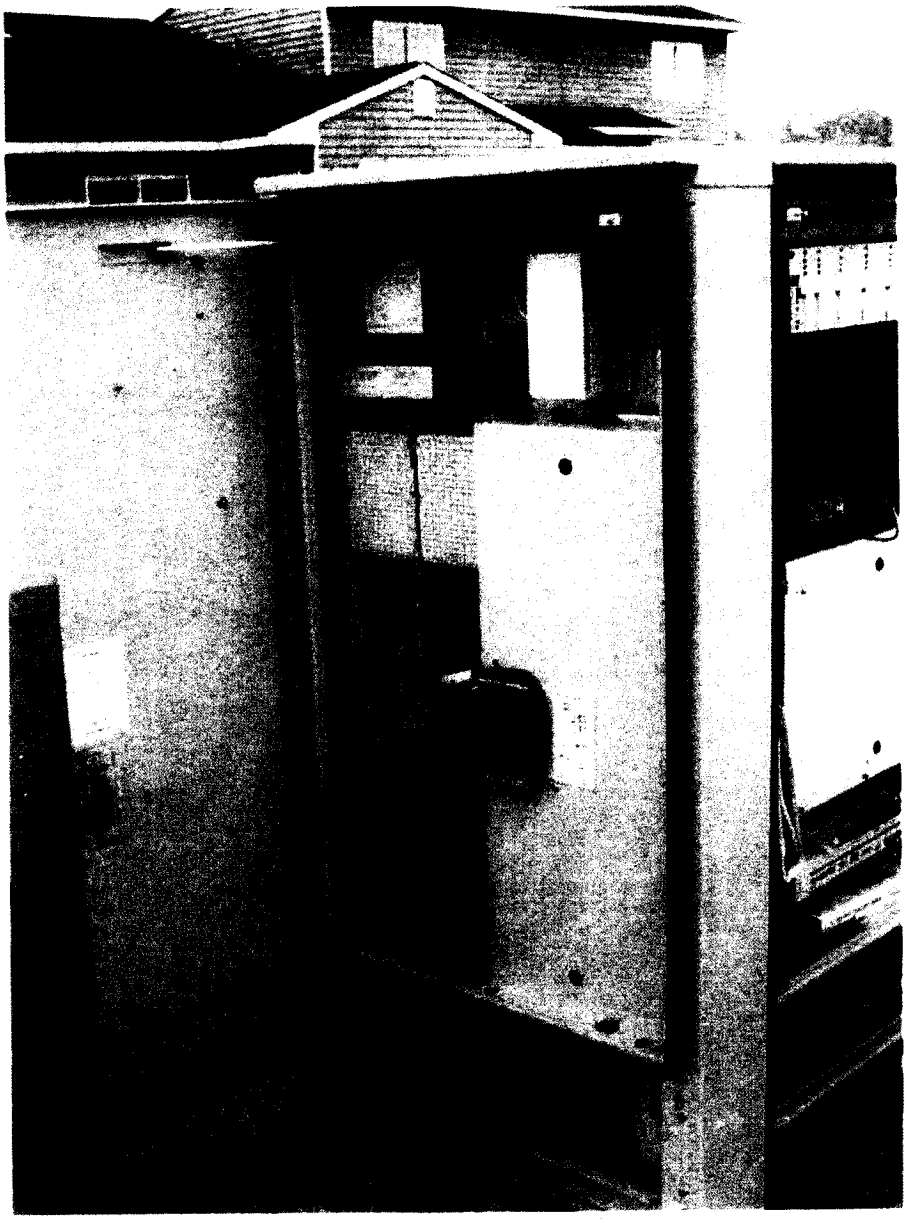


EXHIBIT BDB-2

ACS Ridgemount NGDLC – Multi-Hosted with GCI via GR303 links.
SAI located to the east the NGDLC

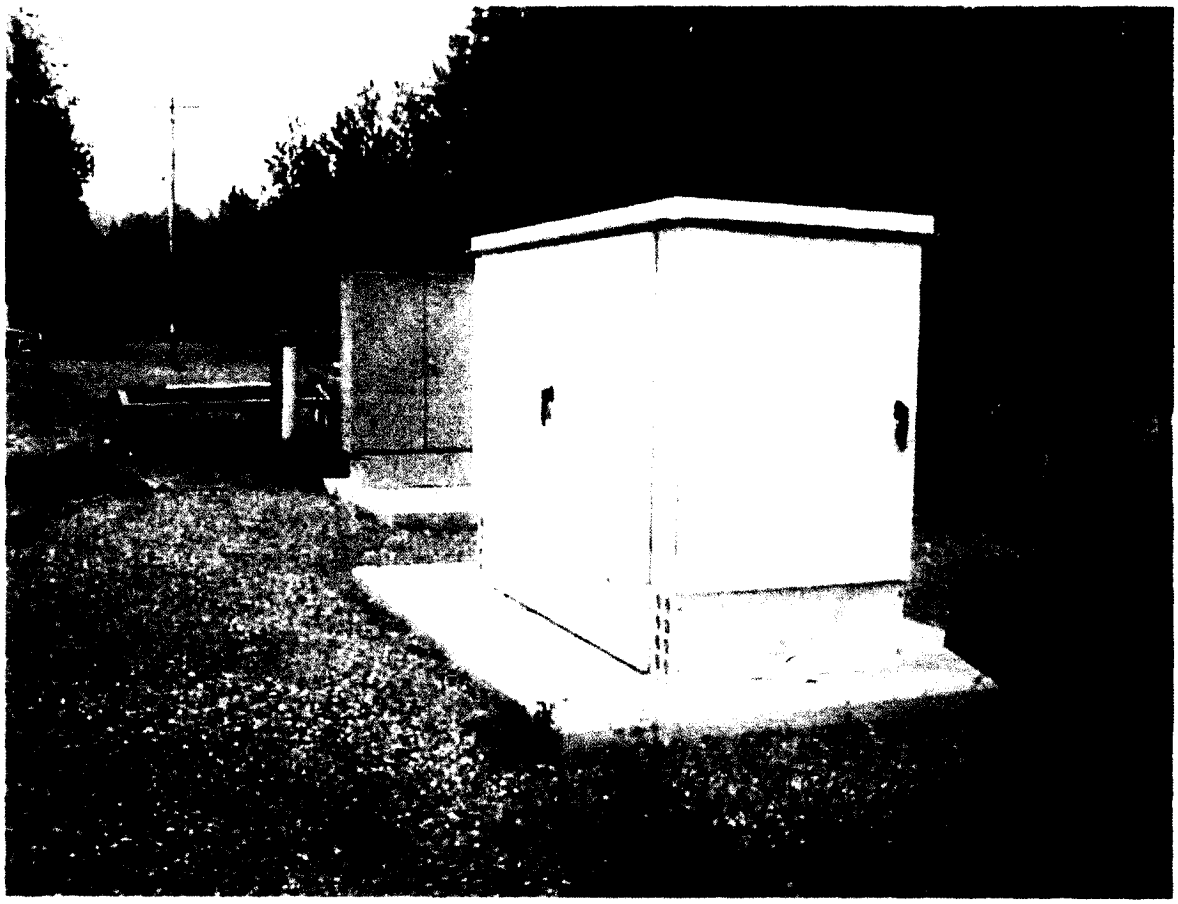


EXHIBIT BDB-2

ACS Ridgemount NGDLC – with SAI's O'Mally Road, Anchorage

Exhibit 1 -
Brown Reply Testimony

EXHIBIT BDB-2

Campbell Green/Sylvan NGDLC Multi-Hosting with GCI

EXHIBIT BDB-2

ACS NGDLC Not Multi-Host Capable – 3999 Boniface, Anchorage

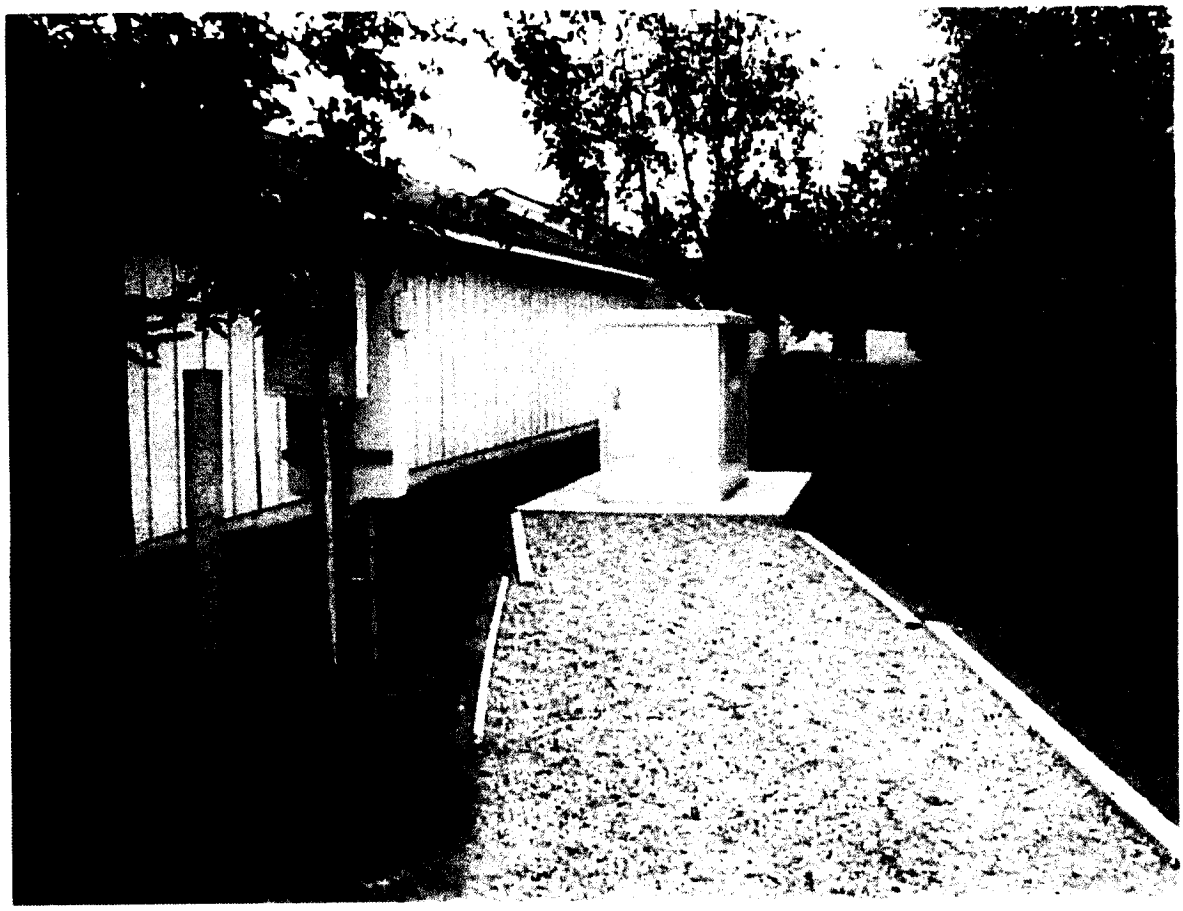
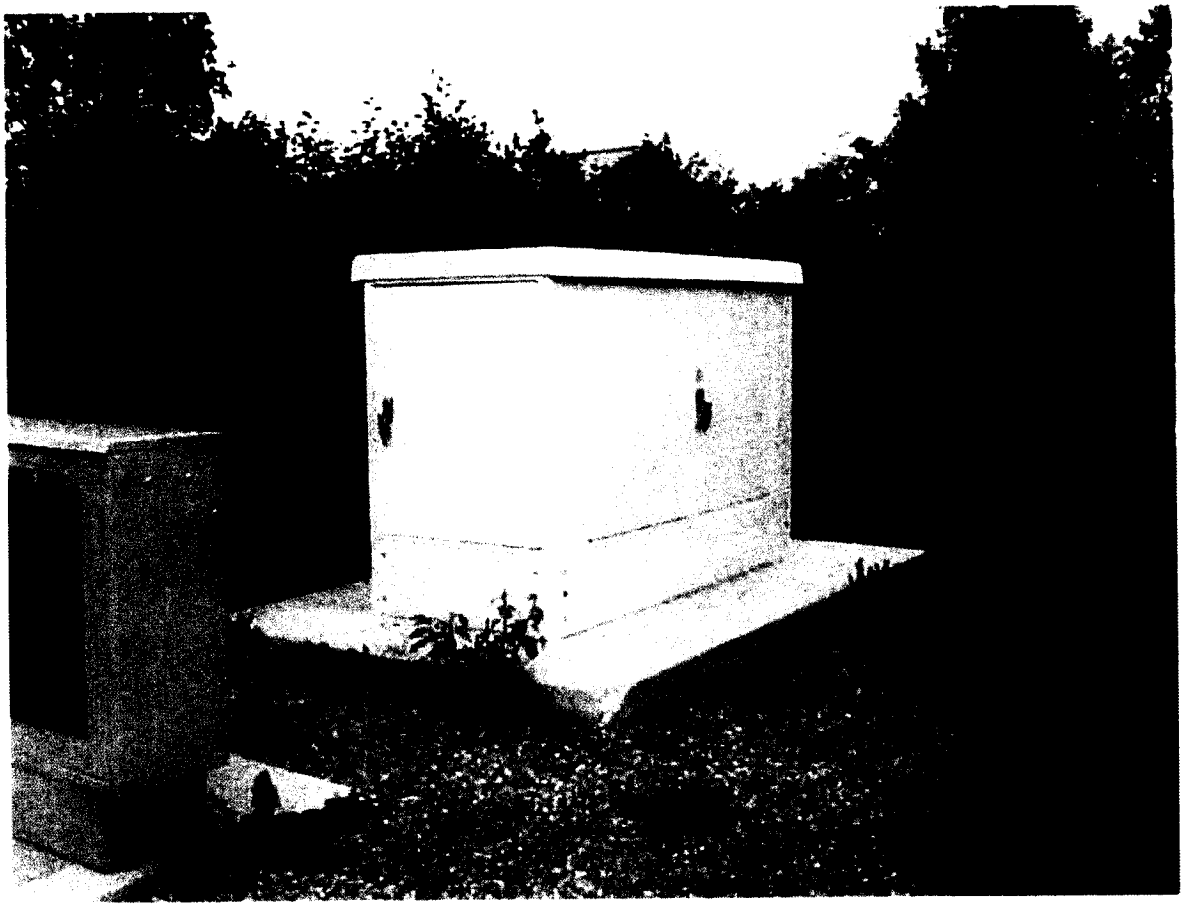


EXHIBIT BDB-2

ACS NGDLC – Not Multi-Host Capable – 12300 Upper Huffman



(Blaine Brown)

Exhibit
BDB-3

July 23, 2003

Jill Hume
ACS Carrier Relations
600 Telephone Avenue
Anchorage, AK 99503

RE: Dallas Subdivision -- Elmendorf Airforce Base

This document provides notification to ACS-ANC that GCI has established outside plant facilities to serve the Dallas Subdivision located on Elmendorf Airforce Base.

The subdivision consists of 24 duplex's, for a total of 48 living units, and one community center. Currently only 12 of the 24 units are completed. It's anticipated all living units will be completed by the end of August 2003. The development is managed by Aurora Military Housing LLC.

The address range in the development is: 3208 Femoyer Avenue to 5212 Femoyer Avenue.

GCI has extended fiber feeder, placed an integrated digital loop carrier system, service area interface and distribution cables in the development.

ACS access to the subscribers in the development can be provided in one of two ways: Access through a Multi-Hosting arrangement, in accordance with the ACS-GCI GR303 Policy and Procedure, or by reselling GCI services.

Costs associated with a Multi-Hosting arrangement are defined in the GR303 Policy. Additionally, there will be the normal recurring and non-recurring charges for loops/subloops should ACS choose the multi-hosting option.

Any E911 or ALI database issues or concerns should be directed to George Molczan, Director Network Operations, 868-5494.

If you have any questions please call me.

Sincerely,

Mary Laird,
GCI Carrier Relations
Office 868-8598

Attachment: Project Key Map

EAFB Dallas Subdivision
Cooper Wire Telephony
Scope Document

Requestor's Information

GCI C&E and Local Service have developed a preliminary business case for the placement of outside plant cables and a digital loop carrier system to serve 24 new duplex's located on Elmendorf Airforce Base.

The total number of living units will be 48. In addition to the 48 living units there will be a community center with an estimated line requirement of 6 lines. The total line requirement for derived facilities will be around 72 lines.

In the development of the business case two alternative DLC's were considered, ADC's PGFlex System and AFC's AccessMax System. The AFC AccessMax System was preferred as the most economical for this application.

Regulatory issues must be considered in the selection of a DLC system for this development. Specifically the system must provide "multi-hosting" through two GR303 interfaces. It's anticipated ACS will request access to their customers through a Multi-Hosting configuration.

The DLC must be equipped with an Optical Add Drop Multiplexer in order to interface with the fiber optic network located near to the development. Consideration must be given to the limited number of fibers in the network from the development back to SADC. The AFC proposal includes optical interface equipment however this configuration would require a new fiber ring. It is suggested Transport Engineering take a look at the AFC TransMAX 1500 to provide not only the basic DS1 requirement to this development but a platform to recovery fibers in the network

The DLC system will be placed in an Outside Plant environment and therefore require the typical OSP Cabinet, batteries, environmental equipment, MET capability, etc. The DLC system will require commercial power at the site

The physical location of the Line Equipment Terminal (LET) needs to be reviewed by LS, OPS and Transport Engineering. Two locations that are being considered for the LET are ADC and EWC. Both locations have advantages and disadvantages that will have to be resolved within the next 30 days. Issues are physical space and limited fibers in the network.

Recommendation: Approval of this capital request to provide facilities for the Dallas Subdivision in the amount of **$94,671**

General Schedule

OSP Engineering	15APR03 to 20APR03
OSP Placing	1MAY03 to 30MAY03
OSP Splicing	15MAY03 to 10JUN03
ISP/DLC Engineering	15APR03 to 25APR03
ISP/OSP/DLC Placing	15MAY03 to 30MAY03
Dial Tone Available	15JUN03